CLAIMS

What is claimed is:

1. A file interface arrangement for providing remote file access to a data processing system via a network, the data processing system including a system input/output bus, the file interface arrangement comprising:

a bus-interface circuit arranged to interface with the system input/output bus;

a processor arrangement coupled to the bus-interface circuit;

a memory coupled to the processor arrangement, the memory configured with program code that is executable by the processor arrangement and that implements a standard NFS client protocol, at least one non-standard extension to the NFS client protocol, and a network protocol stack; and

a network-interface circuit arrangement coupled to the processor arrangement and arranged to send data received from the processor over the network and receive data via the network.

2. The arrangement of claim 1, wherein the data processing system includes an operating system and hosts an NFS client application, the arrangement further comprising an interceptor module coupled to the operating system and to the system bus, the interceptor module configured and arranged to intercept NFS-client calls from the NFS client application and send NFS-client calls to the processor arrangement via the system bus.

3. The arrangement of claim 2, wherein the operating system includes a message stream and the interceptor module is configured and arranged to intercept NFS messages from a message stream of the operating system.

4. The interface arrangement of claim 3, wherein at least one non-standard extension to the NFS client protocol includes an interface to one or more of a storage area network, a database system, a name server, or a meta-data server.

5. The arrangement of claim 2, wherein the operating system includes an RPC software layer, and the interceptor module is configured and arranged to intercept packets from the RPC layer of the operating system.

6. The interface arrangement of claim 5, wherein at least one non-standard extension to the NFS client protocol includes an interface to one or more of a storage area network, a database system, a name server, or a meta-data server.

7. The interface arrangement of claim 4, wherein at least one non-standard extension to the NFS client protocol includes an interface to one or more of a storage area network, a database system, a name server, or a meta-data server.

8. A method for processing network file system (NFS) client calls on a client data processing system, the client system including a processor arrangement that hosts an operating system and a client application, a first network interface card, and a second network interface card, the client application making NFS client calls consistent with an NFS client protocol, comprising:

intercepting an NFS-client call from the client application on the processor arrangement;

sending intercepted NFS-client calls to the first network interface card;

performing NFS-client protocol processing on the first network interface card in response to the NFS-client calls;

sending non-NFS RPCs to the second network interface card; and

performing non-NFS RPC protocol processing on the second network interface card.

9. The method of claim 8, further comprising performing on the first network interface card a process that implements one or more extensions to the NFS client protocol.

10. The method of claim 9, wherein the one or more extensions include an interface to one or more of a storage area network, a database system, a name server, or a meta-data server.

11. The method of claim 10, further comprising intercepting NFS messages from a message stream of the operating system.

12. The method of claim 10, wherein the operating system includes an RPC software layer, and further comprising intercepting packets from the RPC layer of the operating system.

13. The method of claim 8, further comprising intercepting NFS messages from a message stream of the operating system.

14. The method of claim 8, wherein the operating system includes an RPC software layer, and further comprising intercepting packets from the RPC layer of the operating system.

15. An apparatus for processing network file system (NFS) client calls on a client data processing system, the client system including a processor arrangement that hosts an operating system and a client application, a first network interface card, and a second network interface card, the client application making NFS client calls consistent with an NFS client protocol, comprising:

means for intercepting an NFS-client call from the client application on the processor arrangement;

means for sending intercepted NFS-client calls to the first network interface card;

means for performing NFS-client protocol processing on the first network interface card in response to the NFS-client calls;

means for sending non-NFS RPCs to the second network interface card; and

means for performing non-NFS RPC protocol processing on the second network interface card.